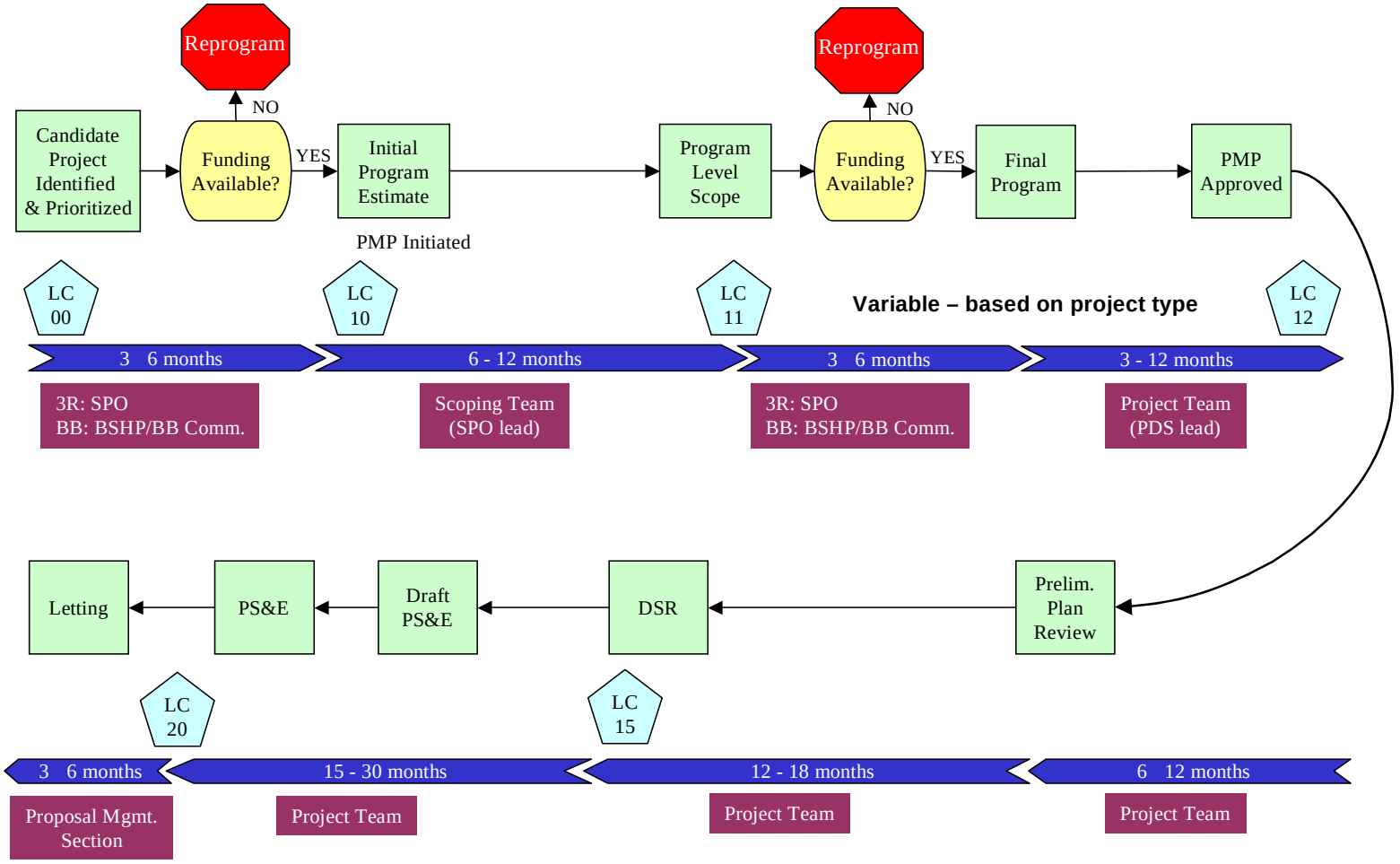
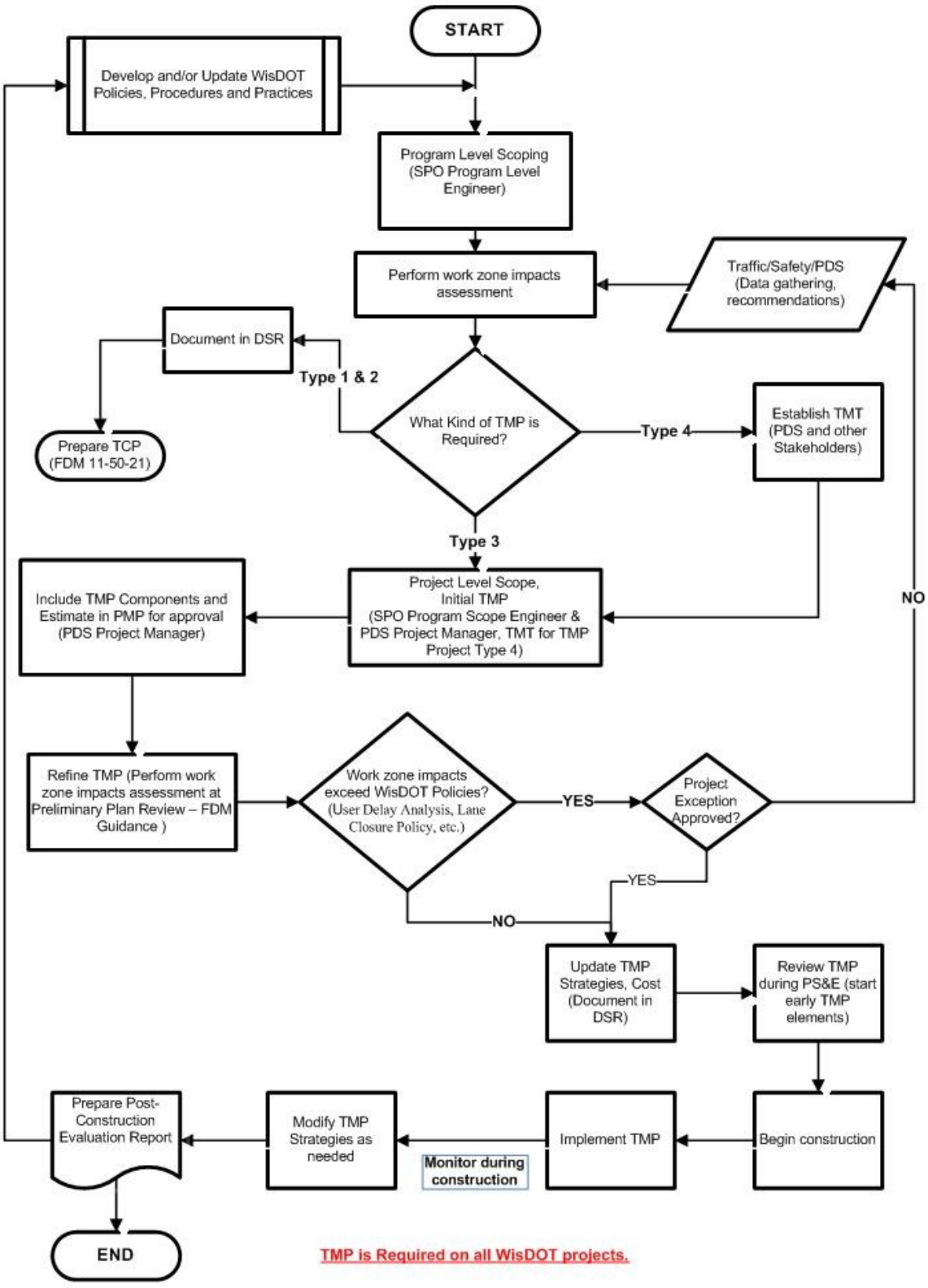
Project Development Process Overview



Project Initiation Process - Needs Identification to PMP Approved

Transportation Management Plan Process



TYPE 1	**TYPE 2**	**TYPE 3**	**TYPE 4**

▪ Project expected to cause minimal or no traffic delays, e.g.:
▪ Work is outside traffic lanes,
▪ Work is on roadway with less than 1,500 AADT,
▪ Work is performed at off-peak hours,
▪ Work may be long duration if impacts are minimal as described above (e.g. local bridge closure)
▪ Work may involve mobile operations or short duration lane closure for less than one hour,
▪ No width or weight restrictions,
▪ No closure to side road or ramps,
▪ No hazards requiring shielding or positive protection,
▪ Accommodation for other users is not required, e.g. pedestrians, bicycles, motor cycle, ATV, snowmobiles, etc.,
▪ Two way traffic is maintained at all times, except may involve flagging during off-peak hours or on roads with less than 1,500 AADT.
	▪ Minimal delays:
	  ▪ Expected to cause minimal delays (<15 min),
	  ▪ Lane closure limited to times on the statewide lane closure policy,
	  ▪ May involve delays exceeding criteria but for **less than five days** during project.
	▪ Work may be long duration if impacts are minimal as described above,
	▪ Work requiring single or multi-lane closures,
	▪ Work may require single lane alternating traffic or temporary road closure,
	▪ May require detour,
	▪ May require side road, ramp, or conventional mainline closure on road,
	▪ Project duration generally less than one single construction season,
	▪ Access & detours:
	  ▪ No improvements required on detours or alternate routes,
	  ▪ No unusual access problems for commercial businesses or other high traffic generators,
	▪ May impose width or weight restrictions,
	▪ May require positive protection or shielding of hazards.
		▪ Lanes closed and delays expected to exceed criteria for more than 5 days during work,
		▪ May require detours, single or multi-lane closures, single-lane alternating traffic scheme,
		▪ May require staged construction, even if through traffic is detoured,
		▪ Detour or alternate route may require improvements (signing, pavement surface/width etc.),
		▪ May require night work,
		▪ Expedited project schedule may be required to meet community needs,
		▪ Multiple closures required to high-volume side roads or ramps,
		▪ Pedestrian, bicycle disruptions may require temporary walkways or paths,
		▪ May impose width or weight restrictions,
		▪ May require positive protection and/or shielding of hazards.
			Has many characteristics of TYPE 3 but also the following:
			▪ Construction schedule is long-term requiring several months or years,
			▪ Require staged construction,
			▪ Work zone may affect one or more interchanges,
			▪ Has significant impacts on regional and inter-regional traffic flow,
			▪ Require multiple traffic management strategies,
			▪ May involve multiple contracts,
			▪ Might include extended lane or full closures.

Project Examples			

▪ Two-lane conversion to four-lane where no side roads are closed,
▪ Local bridge projects that do not require posted detour.
The examples listed below assume the work is on roadway with less than 1,500 AADT or lane closures are limited to off-peak hours so delays are minimal.
▪ Pavement marking,
▪ Signing, sign repairs, replacements.
▪ Maintenance operations, e.g. mowing, patching,
▪ Survey work,
▪ Utility work e.g. placement, maintenance.
▪ Bridge work e.g. inspection, painting.
	▪ Resurfacing projects,
	▪ Pavement repairs,
	▪ Bridge deck overlays,
	▪ Bridge replacement (conventional highway requiring detour),
	▪ Bridge painting on freeways,
	▪ Reconstructions with minimal delays,
	▪ Intersection improvement.
	The examples listed above assume delays meet the specified condition for this TMP Type.
	Develop TOP if lane or road closures on freeways, expressways, other Corridors 2020 routes, or urban arterials cause delays that exceed the criteria of FDM 11-50-30.
		▪ Resurfacing,
		▪ Reconstruction,
		▪ Pavement replacement/reconditioning
		▪ ******Urban Reconstructions,
		▪ ******Intersection reconstruction,
		▪ Bridge Replacement, or rehabilitation,
		▪ Bridge deck replacement,
		▪ Freeway lane or ramp closure/improvements,
		▪ *Freeway and expressway resurfacing, where delays may **exceed criteria on more than five days** during project.*
		
		****** With unusual access needs or high traffic delays.
			May include some of the TYPE 3 but also;
			▪ Freeway /Expressway reconstruction,
			▪ Projects with traffic impacts beyond project corridor, e.g.:
			  ▪ Marquette Interchange
			  ▪ USH 41 corridor
			  ▪ I-94 N/S corridor
			  ▪ I-39/29 Wausau corridor

TYPE 1	TYPE 2	TYPE 3	TYPE 4
TRAFFIC CONTROL PLAN ▪ Temporary Traffic Control (may be SDD) or references Work Zone Safety; *Guidelines for construction, maintenance, & utility operations,* ▪ May require project specific traffic control plan. **PUBLIC INFORMATION** ▪ Media release (optional but recommended if any delay is expected).	**TRAFFIC CONTROL PLAN** In addition to Standard Detail Drawings, the following strategies may be used. ▪ Project specific traffic control plan, ▪ Off peak, night or weekend work, ▪ Reduced speed zones, ▪ Variable lanes (narrow lane width or use of shoulder during peak periods), ▪ Project staging, ▪ Traffic control improvements (e.g. supplemental/enhanced TTC devices,) ▪ Truck traffic/permit restrictions, ▪ Crossover, ▪ Bicycle and pedestrian information, e.g., detour routes, barricade signs. **PUBLIC INFORMATION & OUTREACH** ▪ Media releases, ▪ Notification to targeted groups, e.g. bicycle organizations, schools, organizations representing people with disabilities, motor cycles, snowmobiles, ATV, businesses, chamber of commerce. **TRANSPORTATION OPERATIONS** ▪ Fixed message signs, ▪ Changeable message signs , ▪ Radar speed message sign, ▪ Coordination of adjacent or parallel construction projects. **INCIDENT MANAGEMENT** ▪ Enhanced enforcement - State patrol & local law enforcement during construction, (freeways & expressways) ▪ Emergency pullouts, ▪ State Traffic Operations Center (STOC) on freeways and expressways.	**TRAFFIC CONTROL PLAN** In addition to Standard Detail Drawings, the following strategies may be used. ▪ Project specific traffic control plan, ▪ Construction staging, ▪ Off peak, night or weekend work, ▪ Detours, ▪ Alternate route, ▪ Variable lanes (narrow lane width, e.g. 11’ lanes for use during peak periods), Not on freeways, ▪ Traffic control improvements (e.g. supplemental/enhanced TTC devices,) ▪ Truck traffic/permit restrictions, ▪ Incentive/Disincentive contract clauses, ▪ Crossover, ▪ Reduced speed zones, ▪ Extended weekend closures/Full Closure, ▪ Temporary lanes or shoulder use, ▪ Lane rental, ▪ Temporary traffic screens, ▪ Movable barrier, ▪ Bicycle and pedestrian information, e.g., detour routes, temporary paths/walkways, etc., ▪ Traffic Control Specialist/surveillance items. **PUBLIC INFORMATION & OUTREACH** ▪ Brochures, flyers, and newsletters, ▪ Media releases, ▪ News paper articles, ▪ Public meetings/hearings, (videos, slide shows, etc.) ▪ Coordination with targeted groups: bicycle organizations, schools, organizations representing people with disabilities, motor cycles, snowmobiles, ATV, businesses, chamber of commerce, ▪ Paid advertising. **TRANSPORTATION OPERATIONS**	**TRAFFIC CONTROL PLAN** In addition to Standard Detail Drawings, and traffic control plan sheets, projects in this category may include the following strategies: ▪ Off peak, night or weekend work, ▪ Construction staging, ▪ Full roadway closures, (reduce total construction time) ▪ Lane shifts, ▪ Lane closures, ▪ Detours/alternate route, ▪ Incentive/Disincentive contract clauses, A+B Bidding, Lane rental, ▪ Variable lanes width, (11’ min.) ▪ Crossover, ▪ Reduced speed zones, ▪ Truck traffic/permit restrictions, ▪ Temporary traffic screens, ▪ Reversible lanes, Movable barrier, ▪ Ramp closures, ▪ Innovative construction materials or methods, ▪ Traffic control improvements, Street improvements, ▪ Temporary bicycle or pedestrian facilities, ▪ Traffic Control Specialist/surveillance items. **PUBLIC INFORMATION & OUTREACH** ▪ Brochures, flyers, and newsletters, ▪ Media releases, ▪ Public meetings/hearings, (videos, slide shows, etc.) ▪ News paper articles, ▪ Coordination with targeted groups: bicycle organizations, schools, organizations representing people with disabilities, motor cycles, snowmobiles, ATV, businesses, chamber of commerce, ▪ Highway Advisory Radio (fixed or mobile) ▪ Paid advertising,

		▪ Fixed message signs, ▪ Changeable message signs , ▪ Ramp metering, ▪ Radar speed message sign, ▪ Work zone ITS, ▪ Coordination with adjacent construction projects. **INCIDENT MANAGEMENT** ▪ Enhanced enforcement - State patrol & local, ▪ Crash investigation site, ▪ Emergency Pullouts, ▪ State Traffic Operations Center (STOC), if freeway or expressway ▪ Traffic incident management team, ▪ Pre-plan for incidents, ▪ Traffic surveillance stations (traffic detectors).	▪ Telephone hotline, ▪ Public information center, ▪ Internet website with up to date work zone information. **TRANSPORTATION OPERATIONS** ▪ Fixed message signs, ▪ Changeable message signs , ▪ Ramp metering, ▪ Work zone ITS, ▪ Commercial traffic radio, ▪ Variable work hours, Park and ride lots, parking restrictions ▪ Rideshare incentives, Rideshare marketing, ▪ Transit incentives, Transit service improvements, ▪ Train or light-rail incentives, Shuttle service incentives. ▪ Coordination with adjacent or parallel construction projects. **INCIDENT MANAGEMENT** ▪ Enhanced enforcement - State patrol & local, ▪ Crash investigation site, Emergency Pullouts, ▪ State Traffic Operations Center (STOC), ▪ Traffic incident management team, ▪ Pre-plan for incidents, ▪ Traffic surveillance stations (traffic detectors), ▪ Freeway service patrol.

Project Description		**Use**
•	Project Type	☐
•	Project location	☐
•	General schedule and timeline	☐
•	Project goals and constraints *(benefits and challenges that may be expected)*	☐
•	Proposed construction phasing/staging	☐
•	Lane closure	☐
•	Related project(s) *(Other ongoing/planned projects adjacent on same highway, parallel routes or alternate routes that may cause cumulative effects)*	☐
Existing and Future Conditions		
•	Data collected and analysis/modeling approach	☐
•	Existing roadway characteristics *(history, roadway classification, number of lanes, unusual geometric features, urban/suburban/rural)*	☐
•	Existing and historical data (volumes, speed, capacity, volume to capacity ratio, percent truck, queue length, peak traffic hours)	☐
•	Existing traffic operations *(signal timing, traffic controls)*	☐
•	Incident and crash data *(Use most current crash data for the last three years)*	☐
•	Local community and business concerns/issues *(inputs from community and businesses)*	☐
Work Zone Impacts Assessment		
•	Summary of anticipated work zone impacts	☐
•	Impacts assessment of alternative project design and management strategies *(in conjunction with each other)*	☐
	▪ Construction approach/phasing/staging	☐
	▪ Work zone impacts management strategies	☐
	▪ Does the project affect other projects in other regions?	☐
	▪ What is the anticipated magnitude of traffic impacts of the proposed project on other roads/routes or corridor?	☐
•	Traffic Analysis results *(if applicable - use to compare existing and future traffic)* a) Traffic analysis strategies *(How were expected construction traffic conditions determine? Document any traffic reduction factors or other assumptions used in the calculations)*	☐
	b) Traffic growth rates *(used for analysis, include source and assumptions)*	☐
	c) Traffic prediction during construction (volume, delay, queue)	☐
	d) Measures of effectiveness *(used for the analysis, E.g. capacity, volume, queue, speed, travel time, diversions, safety, noise, environmental, adequacy of detour routes, etc.)*	☐
	e) Analysis tool selection methodology and justification	☐
	f) Analysis results	☐
	a) Traffic (Volume, capacity, delays, queue, noise?)	☐
	b) Safety	☐
	c) Adequacy of detour or alternate routes	☐
	d) Business/community impacts	☐
	e) Seasonal impacts	☐
	f) Pedestrian and bicyclist impacts	☐
	g) Emergency service provider impacts	☐
	h) Transit impacts	☐
	i) Cost effectiveness/evaluation of alternatives	☐

• Selected alternative	
▪ Construction approach/phasing/staging strategies	☐
▪ Work zone impacts management strategies	☐

Selected Work Zone Impact Management Strategies

• **Traffic Control Strategies**	
▪ Traffic control devices	☐
▪ Positive protection devices (e.g. barrier)	☐
▪ Law enforcement	☐
▪ Flagging	☐
▪ Temporary widening of lane/shoulder to maintain traffic lanes	☐
▪ Off-peak lane closure/night work	☐
▪ Ramp Closure	☐
▪ Project coordination, contracting and	☐
▪ Innovative construction strategies (A +B bidding, Lane rental)	☐
• **Public Information & Outreach Strategies**	
▪ Public meetings/speaker forums	☐
▪ Radio & TV	☐
▪ Internet	☐
▪ Paid ads	☐
▪ Brochures & Mailers	☐
▪ Telephone hotline (511)	☐
▪ State TOC	☐
▪ Portable changeable message signs	☐
▪ Dynamic message signs	☐
▪ Work zone traveler warning & information systems	☐
▪ Highway advisory radio	☐
▪ Availability of detour routes	☐
▪ Availability of alternate routes	☐
▪ Planned lane closure website	☐
▪ Bicycle & pedestrian information	☐
• **Transportation Operations Strategies**	
▪ Park & Ride	☐
▪ Ridesharing	☐
▪ Variable work hours	☐
▪ Incentives (transit, ridesharing)	☐
▪ Retiming of signal on detours/alternate routes	☐
▪ Temporary traffic signals	☐
▪ Turn/parking restrictions	☐
▪ Heavy vehicle restrictions	☐
▪ Use of dynamic lane closures	☐
▪ Ramp metering	☐
▪ Speed limit reduction (requires temporary speed zone declaration approved by Region Traffic Engineer and State Traffic Engineer if reducing from 65mph)	☐
▪ Law enforcement mitigation contract	☐
▪ Movable barriers	☐
▪ Crash cushions	☐
▪ Temporary rumble strips	☐
▪ Work zone ITS	☐

	▪ Project onsite safety training	☐
	▪ Construction safety inspector	☐
•	**Incident Management Strategies**	☐
	▪ Tow/freeway service patrol	☐
	▪ Deployment of 511	☐
	▪ STOC	☐
	▪ State Patrol	☐
	▪ Coordinate with media	☐
	▪ Local detour routes	☐
	▪ Incident/emergency response plan	☐
	▪ Temporary pullouts for disabled vehicles	☐
	▪ Temporary crash investigation sites	☐
TMP Monitoring		
•	Monitoring requirements	☐
•	Evaluation report of success and failures of TMP	☐
Contingency Plans		
•	Trigger Points	☐
•	Contractor(s) Contingency plan	☐
•	Standby Equipment or personnel	☐
TMP Implementation Costs		
•	Itemized cost	☐
•	Cost responsibilities/sharing opportunities	☐
•	Funding source(s)	☐
Special Considerations/Attachments		
•	Special provisions (for special procedures, material, technology, or equipment)	☐
•	Oversized truck loads	☐

Reporting/Documentation – Example Layout for TMP Type 4	
TMP Section	**Description**
1. Introductory Material	Cover page, Engineer stamp page, table of contents, list of figures, list of tables, list of abbreviations and symbols, and terminology.
2. Executive Summary	Provide a brief overview and summary of the project, general approach, selected construction staging, anticipated work zone impacts of the project, the chosen TMP strategies, cost for TMP, conclusion/recommendations for the project.
3. TMP Roles and Responsibilities	Document roles and responsibilities for the development, implementation, monitoring and evaluation of the TMP, i.e. TMP manager, stakeholders/review committee, approval contact(s), TMP implementation task leaders (e.g., public information liaison, incident management coordinator, etc.), TMP monitoring, and emergency contacts.
4. Project Description	Provide information on project type, project background, project area/corridor, project goals and constraints, proposed construction staging, general schedule and timeline, related projects, and other project related issues.
5. Existing and Future Conditions	Briefly describe current and anticipated future conditions for the project area, include data collection and modeling approach, existing roadway characteristics (history, roadway classification, number of lanes, geometrics, urban/suburban/rural), existing and historical traffic data (volumes, speed, capacity, volume/capacity, percent trucks, queue length, peak traffic hours), existing traffic operations (signal timing, traffic controls), incident and crash data, local community and business concerns/issues, traffic growth rates (for future construction dates), and traffic predictions during construction (volume, delay, queue), environmental concerns, etc.
6. Work Zone Impacts Assessment	Based on the TMP type, this section may include qualitative and/or quantitative analysis of work zone impacts, impact assessment of alternative strategies and impacts of the chosen strategies.
7. Work Zone Impacts Management Strategies	The objectives of this section are to minimize traffic delays, maintain or improve motorist and worker safety, and maintain access for businesses and residents. Identify strategies for both the mainline and detour routes. Where appropriate, these strategies should be documented on plan sheets
8. TMP Monitoring Requirements	TMP monitoring requirements should be included in the TMP. Include or refer to WisDOT policies, standards, requirements, and procedures for TMP implementation and monitoring.
9. Contingency Plans	Specify activities that should be undertaken to minimize traffic impact when unexpected events occur in the work zone (e.g. crash, unforeseen traffic demand, inclement weather, disabled vehicle etc.)
10. TMP Implementation Costs	Estimated costs for the chosen work zone management strategies done early in project development process. Where appropriate include cost responsibilities, sharing opportunities, and funding source(s).
11. Conclusions / Recommendations	Highlight key finding for the chosen alternatives and discuss anticipated traffic or safety concerns such as estimated queues, accessibility issues, issues with detours and any special provisions
12. Attachments/Appendices	As needed (include any information that may be relevant to the project leader/manager etc.)

SAMPLE COPY "TMP DOCUMENTATION AND REQUEST FOR APPROVAL FORM"

(Use these links for a working copy of this file: for WisDOT DOTNET users http://dotnet/dtid_bho/extranet/programs/workzone/workzone.shtm and on the extranet use https://trust.dot.state.wi.us/extntgtwy/dtid_bho/extranet/programs/workzone/workzone.shtm.)

TMP DOCUMENTATION AND REQUEST FOR APPROVAL

We are requesting approval of the Transportation Management Plan (TMP) for the project detailed below. This project is categorized as TMP type_____. Impacts resulting from project activities meet the current work zone policies of the Wisconsin Department of Transportation.

TMP/Project Type	Action
A. Project that requires a DSR and is TMP Type 1, 2 or 3.	Complete and submit this document and any attachments to BPD project services liaison.
B. Project that requires a DSR and is TMP Type 4.	Complete this document as the TMP Executive Summary and submit along with separate TMP report to BPD project services liaison.
C. Project does not require DSR and is TMP Type 1, 2 or 3.	Complete and submit this document and any attachments to BPD project services liaison.
For Federal Oversight projects, coordinate early in TMP development with BPD & FHWA project liaisons.	

1. Project Information

Design ID: _____ PS&E Date: _____
Project Title: _____ Let Date: _____
Project Limits: _____ Project Length _____Miles
Highway: _____ Project Duration _____Days
_____ Month(s) _____ Month(s)
County: _____ AADT _____ AADT count year
Project type (recst., recondition, SHRM, etc.): _____
Engineer's Estimate: ☐ < $1 Million ☐ $1M-3M ☐ $3M-10M ☐ >$10M
Is the project a National Highway System (NHS) route? ☐ Yes ☐ No
Is the project Federal Oversight? ☐ Yes ☐ No
OSOW Route? ☐ Yes ☐ No

2. Brief description of work activities:

_____

3. Briefly describe the staging planned for maintaining traffic:

_____

4. Will there be restrictions on pedestrian/bicycle access?
If Yes:
a) Will sidewalk/multiuse path be closed? ☐ Yes ☐ No
b) Describe how pedestrian and bicyclists will be accommodated (e.g., temporary paths, surface material, separation and protection from construction activities and drop-offs, etc.)
_____
c) Will crosswalks be provided? ☐ Yes ☐ No
What is the spacing of crosswalks (measured in blocks or feet)? Consideration should be made for adequate spacing (measured in blocks or feet) _____
d) Describe how the strategies are in compliance with ADA? _____

5. Briefly describe how access to traffic generators, businesses, school buses, garbage trucks, and postal services will be mitigated (alternate routes, etc.): _____

6. Will the project have lane closures? ☐ Yes ☐ No
If Yes:
a. Are there restrictions on when lane closures are allowed? ☐ Yes ☐ No
b. What hours/days are lane closures permitted? _____
c. How were traffic counts used in determining permitted lane closure times? (For multi-lane road, indicate typical peak hour volume per direction of travel. For two-lane, two-way road indicate AADT) _____

7. Please provide the following:

a. Minimum lane width to be maintained. _____
b. Minimum height (if less than typically available)_____
c. Available roadway width (lanes + shoulder) _____
d. Total number of lanes maintained _____

8. Will the project be detoured? ☐ Yes ☐ No

If yes:

a. Explain length of detour, travel times, improvements required for signal timing, surface and shoulder conditions, capacity, etc.: _____
b. Are there width and height restrictions on the detour? ☐ Yes ☐ No

9. List major special events and holidays, and how traffic disruptions will be minimized: _____

10. Describe the method(s) (LCAT, Quadro, FDM 11-50-30, Synchro, etc.) used to estimate motorist delays or queue length? (Applicable only for freeways, expressways, and signalized corridors). _____

11. What is the anticipated travel delay during peak travel periods for freeways and expressways (also indicate frequency, e.g. daily and duration).

Please compare the peak hour volumes per lane with the work zone capacity criteria in 11-50-30. If it exceeds the estimated capacity, a delay calculation is required. If the delay is more than 15 minutes, the TMP will be a type 3 and if less than 15 minutes, it generally will be a type 2. The Regional Work Zone Engineer can assist you in determining your delay. _____

12. Identify alternate routes anticipated, and any alternate route improvements or signing planned.

_____

13. Are any intersection traffic control changes proposed such as temporary signals, temporary changes to an all way stop, etc?

14. Are there anticipated traffic impacts from the proposed project on other roads/routes in the region/corridor? Identify other projects in the corridor (only if delay anticipated on this project) _____

15. Does the project affect other regions/states? ☐ Yes ☐ No

If yes, explain coordination and mitigation strategies: _____

16. Check mitigation strategies planned

STRATEGY		COMMENTS
Public information campaigns	☐	_____
Off-peak lane closures	☐	_____
Extra law enforcement	☐	_____
Temporary widening to maintain traffic lanes	☐	_____
Changeable message signs (PCMS)	☐	_____
Ramp closures	☐	_____
Temporary signals/timing revisions	☐	_____
Coordination with adjacent projects	☐	_____
Innovative contracting, (lane rental, A+B, etc)	☐	_____
Temporary Emergency Pullouts	☐	_____
Motorist service patrols	☐	_____
Nighttime Work	☐	_____
Enhanced Traffic control devices (Wet reflective pavement marking, temp concrete barrier, etc)	☐	_____
Reduced regulatory speed limit (requires	☐	_____

declaration approved by Regional Traffic Engineer, & by BHO if 65-mph hwy.)

Other (identify):

17. Describe public information strategies planned (coordinate this activity with your Regional Communications Manager):

18. Describe incident management strategies planned:

19. Describe how transit impacts will be mitigated:
a) Is access to bus stops affected? ☐ Yes ☐ No. If yes, explain

Attachment(s) ☐ Yes ☐ No
Please list: _____

Project ID: _____

Preparer of TMP: _____ **Title/Company:** _____
☐60% (initials) ☐90% (initials)

Approval
Project Manager: _____ Date: _____ Telephone: _____

_____ _____
Reviewer (Regional Traffic or Local Prog. Mgmt. Consultant) Date
☐60% (initials) ☐90% (initials)

_____ _____
Region Project Development Chief or Local Program Manager Date

☐60% (initials) ☐90% (initials)

Concurrence:

_____ _____
BPD Project Services Chief Date
☐60% (initials) ☐90% (initials)

_____ _____
FHWA (Federal Oversight Projects Only) Date
☐60% (initials) ☐90% (initials)